The use of organoids in the study of radiation response and therapeutic window

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Stellingen behorende bij het proefschrift

The use of organoids in the study of radiation response and therapeutic window

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1. Cancer stem cell resistance and normal tissue stem cell sensitivity are crucial factors which limit the efficacy of radiotherapy. *(This thesis)*

2. Read-outs of conventional 2D models often misestimate the *in vivo* response to therapies; organoids, which possess many of the interactions lacking in 2D cultures, offer a potentially more realistic model to predict therapeutic responses. *(This thesis)*

3. Organoids can only be successful to model disease and help 'personalize' medicine, if used as a complementary resource to 'more traditional' models.

4. Organoids are the perfect 'toy' for a biologist's inner child; developing new structures and stories from cellular Lego.

5. While the relative biological effectiveness (RBE) is a useful concept for explaining different radiation modalities, it is perhaps not the best way to compare radiations types, as a single RBE can never be determined. *(This thesis)*

6. Science communication to non-scientists needs to be more balanced, otherwise the public will disregard opinions they don't want to hear, regardless of how valid they are.

7. In science you need luck, but you need to force luck in science.

8. If you want to learn the language of the lab, the first word you should learn is "Thanks"; this word will get you the best results.

9. Although said in a different context, the words of comedian Steven Wright could probably be used to sum up the feelings of most PhD students when he said "I'm writing a book. I've got the page numbers done."

10. You'll quickly forget the feelings of despair when the experiment you need for your final figure finally works.